Amendments to the Claims

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Claims 1-34 (cancelled).

Claim 35 (previously presented) The method of claim 38, wherein the individual has Grade I obesity.

Claim 36 (previously presented) The method of claim 38, wherein the individual has Grade II obesity.

Claim 37 (previously presented) The method of claim 38, wherein the individual has Grade III obesity.

Claim 38 (currently amended) A method of regulating body weight comprising administering to an individual in need thereof an antagonist of calcitrophic hormone (1,25-$(OH)_2$-D) activity, wherein the antagonist is ~~selected from the group consisting of~~ 1-β, 25-dihydroxyvitamin D, ~~a homolog of 1-β, 25-dihydroxyvitamin D, and an isomer of 1-β, 25-dihydroxyvitamin D~~, in an amount effective to block calcitrophic hormone (1,25-$(OH)_2$-D) activity in adipocytes of said individual, and increase intracellular calcium, said antagonist inducing weight loss, and/or increasing metabolic consumption of adipose tissue.

Claim 39-49 (cancelled)

Claim 50 (previously presented) The method of claim 38, wherein the antagonist is contained in a liquid.

Claim 51-54 (cancelled)

Claim 55 (previously presented) The method of claim 38, wherein the calcitrophic hormone activity in adipocytes that is blocked is selected from one or more of inhibiting lipolysis, stimulating lipogenesis, increasing adiposity, stimulating triglyceride accumulation, increasing intracellular calcium

concentration ($[Ca^{2+}]_i$), inhibiting adipocyte uncoupling protein 2 (UCP2) expression and/or stimulating fatty acid synthase (FAS) activity.

Claim 56 (previously presented) The method of claim 38, wherein the antagonist reduces the risk of an obesity related health problem selected from the group consisting of coronary artery disease, stroke, diabetes, osteoarthritis, ligament injuries, perineal dermatitis, diabetes mellitus, cardiomyopathy, and urologic syndrome.

Claim 57 (previously presented) The method of claim 38, wherein the individual is a human.

Claim 58 (previously presented) The method of claim 38, wherein the individual is a non-human animal.

Claim 59-60 (Cancelled)

Claim 61 (currently amended) The method of claim 38, wherein the antagonist brings about an effect selected from the group consisting of ~~suppresses~~ suppressing adiposity, ~~inhibits~~ inhibiting triglyceride accumulation, ~~reduces~~ reducing

intracellular calcium concentration ($[Ca^{2+}]_i$), ~~increases~~ increasing adipocyte uncoupling protein 2 (UCP2) expression, ~~increases~~ increasing core temperature, ~~accelerates~~ accelerating weight loss and fat mass reduction in an individual under caloric restriction, ~~and/or prevents stimulation of fatty acid synthase (FAS) activity~~ and combinations thereof.

Claim 62 (cancelled)

Claim 63 (previously presented) The method of claim 38, wherein the antagonist suppresses or decreases intracellular calcium concentration ($[Ca^{2+}]_i$).

Claims 64-80 (cancelled)

Claim 81 (New) The method of claim 38, wherein the antagonist blocks the action of 1,25-(OH)2-D in adipocytes.

Claim 82 (New) The method of claim 38, wherein the administering decreases the levels of calcitrophic hormones in the adipocytes.

Claim 83 (New) The method of claim 38, wherein the antagonist stimulates lipolysis and inhibits lipogenesis.

Claim 84 (New) The method of claim 38, wherein the antagonist blocks calcitrophic hormone induced inhibition of lipolysis in adipocytes.

Claim 85 (New) The method of claim 38, wherein the antagonist suppresses adiposity and inhibits triglyceride accumulation by stimulating lipolysis and inhibiting lipogenesis.

Claim 86 (New) The method of claim 38, wherein the antagonist increases core temperature.

Claim 87 (New) The method of claim 38, wherein the antagonist induces a metabolic state in which the energy metabolism is shifted from energy storage to energy expenditure.

Claim 88 (New) The method of claim 38, wherein the antagonist accelerates weight loss and/or fat mass reduction in an individual under caloric restriction.